

CLAIMS

1. A device comprising a layer of piezoelectric material and a layer of ferroelectric material clamped together such that a voltage applied to one layer results in a voltage being generated across the other layer.

2. A device as claimed in claim 1, wherein a common electrode is provided between the two layers, an input electrode is provided on one of the layers and an output electrode is provided on the other of the layers, the input and output electrodes being disposed on opposite sides of their respective layers compared with the common electrode.

Sub 11 3. An amplifier comprising a device as claimed in claim 1 or claim 2.

4. A transformer comprising a device as claimed in claim 1 or claim 2.

5. An inverter comprising a device as claimed in claim 1 or claim 2.

6. A comparator comprising a device as claimed in claim 1, said device further having a third layer of material clamped together with the other two layers, said third layer being a ferroelectric material.

7. A comparator as claimed in claim 6, wherein a first input electrode is provided on one of the layers, a second input electrode is provided on another of the layers, a common electrode is provided between the layers having the input electrodes, and an output electrode is provided on the third layer, the input electrodes being disposed on opposite sides of their respective layers compared with the common electrode.

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